Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (currently amended) A method of dynamically mapping addresses between a virtual disk address and one or more physical block addresses for a storage system in response to a write operation requested by a host system, the method comprising:

receiving a write request from a host, said write request including a virtual memory address and one or more blocks of data;

determining whether memory space in the storage system has been allocated for the one or more blocks of data based on the virtual memory address;

if it is determined that memory space has been allocated, completing the write operation to the allocated memory space; and

if it is determined that no memory space has been allocated:

automatically allocating memory space in the storage system for the one or more blocks of data, wherein automatically allocating includes automatically updating a mapping table to include an entry linking the virtual address and one or more physical block addresses of the storage system; and

completing the write operation to the allocated memory space.

2. (currently amended) The method of claim 1, wherein determining includes determining whether [[a]] the mapping table includes a link between the virtual address and one or more physical block addresses of the storage system.

3. (canceled).

4. (original) The method of claim 1, wherein if it is determined that no memory space has been allocated, the method further comprises:

determining the number of blocks of memory space in the storage system to be allocated.

5. (original) The method of claim 4, wherein the number of blocks allocated is greater than the number of data blocks included with the write request.

6. (original) The method of claim 1, wherein the storage system includes a plurality of storage devices.

7. (currently amended) A method of dynamically mapping addresses between a virtual disk address and one or more physical block addresses for a storage system in response to a request from a host system to perform an operation on the storage system, the method comprising:

receiving a request from a host to perform an operation on one or more blocks of the storage system, said request including a virtual memory address;

determining from a mapping table whether memory space in the storage system has been allocated for the virtual memory address;

if it is determined that memory space has been allocated, completing the operation on the allocated memory space; and

if it is determined that no memory space has been allocated:

automatically allocating memory space in the storage system for the virtual address, wherein automatically allocating includes automatically updating a mapping table to include an entry linking the virtual address and one or more physical block addresses of the storage system; and

completing the operation on the allocated memory space.

8. (original) The method of claim 7, wherein the operation is a read operation, and wherein if it is determined that memory space has been allocated, completing the operation includes retrieving the data from the allocated memory space.

9. (original) The method of claim 8, wherein the operation is a read operation, and wherein if it determined that no memory space has been allocated, completing the operation includes returning a default formatted page without retrieving any data from the storage system.

10. (original) The method of claim 7, wherein the operation is a write operation and wherein the request includes one or more blocks of data to be written to the storage system.

11. (original) The method of claim 10, wherein if it is determined that no memory space has been allocated, the method further comprises:

determining the number of blocks of memory space in the storage system to be allocated.

12. (original) The method of claim 11, wherein the number of blocks allocated is greater than the number of data blocks included with the write request.

13. (currently amended) The method of claim 7, wherein determining includes determining whether [[a]] the mapping table includes a link between the virtual address and one or more physical block addresses of the storage system.

14. (canceled)

15. (original) The method of claim 7, wherein the storage system includes a plurality of storage devices.

16. (new) A method of dynamically mapping addresses between a virtual disk address and one or more physical block addresses for a storage system in response to a write operation requested by a host system, the method comprising:

receiving a write request from a host, said write request including a virtual memory address and one or more blocks of data;

determining whether memory space in the storage system has been allocated for the one or more blocks of data based on the virtual memory address;

if it is determined that memory space has been allocated, completing the write operation to the allocated memory space; and

if it is determined that no memory space has been allocated:

automatically allocating memory space in the storage system for the one or more blocks of data, including determining a number of blocks of memory space in the storage system to be allocated, wherein the number of blocks allocated is greater than the number of data blocks included with the write request; and

completing the write operation to the allocated memory space..

17. (new) A method of dynamically mapping addresses between a virtual disk address and one or more physical block addresses for a storage system in response to a request from a host system to perform an operation on the storage system, the method comprising:

receiving a request from a host to perform an operation on one or more blocks of the storage system, said request including a virtual memory address;

determining from a mapping table whether memory space in the storage system has been allocated for the virtual memory address;

if it is determined that memory space has been allocated, completing the operation on the allocated memory space; and

if it is determined that no memory space has been allocated:

automatically allocating memory space in the storage system for the virtual address; and

completing the operation on the allocated memory space;

wherein the operation is a read operation, and wherein if it determined that no memory space has been allocated, completing the operation includes returning a default formatted page without retrieving any data from the storage system.

18. (new) A method of dynamically mapping addresses between a virtual disk address and one or more physical block addresses for a storage system in response to a request from a host system to perform an operation on the storage system, the method comprising:

receiving a request from a host to perform an operation on one or more blocks of the storage system, said request including a virtual memory address, wherein the operation is a

write operation and wherein the request includes one or more blocks of data to be written to the storage system;

determining from a mapping table whether memory space in the storage system has been allocated for the virtual memory address;

if it is determined that memory space has been allocated, completing the operation on the allocated memory space; and

if it is determined that no memory space has been allocated:

automatically allocating memory space in the storage system for the virtual address, including determining a number of blocks of memory space in the storage system to be allocated, wherein the number of blocks allocated is greater than the number of data blocks included with the write request; and

completing the operation on the allocated memory space.